Claims

1. A method of drilling a second wellbore section (12) from a first wellbore section (10) that is lined with a tubular liner (11) and of extending the tubular liner into the second wellbore section, the method comprising:

(a) drilling the second wellbore section (12) from the first wellbore section (10) using a remotely controlled electrically powered drilling assembly that is suspended from a cable (1) that extends from the surface wherein the cable comprises an upper (13) and a lower (14) length of cable connected by a cable connection means (15) and the drilling assembly comprises an expansion means (2), a traction means (3), and an electrically actuated drill bit (6) and wherein electricity is transmitted to the assembly via at least one electrical wire and/or segmented electrical conductor that extends from the surface to the assembly;

(b) introducing an expandable liner pipe (19) into the wellbore by disconnecting the cable connection means (15) at the surface to separate the upper (13) and lower (14) lengths of cable, arranging the expandable liner pipe (19) concentrically about the upper (13) or lower (14) length of cable, reconnecting the cable connection means (15) to rejoin the upper (13) and lower (14) lengths of cable and running the expandable liner pipe (19) into the wellbore supported on a cable traction means (20) that is moveable along the cable; and

(c) actuating the expansion means (2) of the assembly to expand the upper portion of the expandable liner pipe (19) into the lower portion of the tubular

liner (11) to form a sealed connection therebetween and to expand the lower portion of the expandable liner pipe (19) to extend the tubular liner; and

(d) optionally repeated steps (a) to (c).

2 A method as claimed in claim 1 in which the cable is a hybrid cable comprising tubing suitable for conveying a fluid having at least one electrical conductor wire and/or segmented electrical conductor embedded in the wall of the tubing and drilling mud is passed through the cable.

3. A method as claimed in claim 1 or claim 2 in which the drilling assembly and expandable liner pipe are passed through a production conduit in the first wellbore section prior to drilling the second wellbore section.

4. A method of drilling a second wellbore section (12) from a first wellbore section (10) that is lined with a tubular liner (11) and of extending the tubular liner into the second wellbore section, the method comprising:

(a) drilling the second wellbore section (12) from the first wellbore section (10) using a drilling assembly suspended from the lower end of a cable (1) that encases at least one electrical wire or segmented electrical conductor wherein the assembly comprises an expansion means (2), an electric motor (5), a drive means and a drill bit (6), the cable extends from a surface hoist means (16) through a lubricator (17) and a surface valve (18) into the wellbore and is provided with at least one releasable cable connection means (15) and with a cable traction means (20) that is moveable along the length of the cable, the method comprising:

(b) interrupting drilling of the second wellbore section (12), actuating the hoist means (16) to pull the cable and hence the assembly upwardly through the wellbore until the cable connection means (15) is positioned within the lubricator (17);

(c) moving the cable traction means (20) upwardly along the cable into the lubricator(17) to a position below the cable connection means (15);

(d) closing the surface valve (18) to seal off the wellbore, disconnecting the

lubricator (17), and disconnecting the cable connection means (15);

(e) arranging an expandable liner pipe (19) concentrically about the cable supported on the traction means (20);

(f) reconnecting the cable connection means (15) and reconnecting the lubricator (17);

(g) opening the surface valve (18) and moving the cable traction means (20) downwardly along the cable so that the expandable liner pipe (19) that is supported on the cable traction means passes through the surface valve (18) and into the wellbore to a position where the upper portion of the expandable liner pipe (19) overlaps the lower portion of the tubular liner (11) and the lower portion of the expandable liner pipe extends into the open hole of the second wellbore section (12);

(h) actuating the expansion means (2) of the assembly to expand the upper portion of the expandable liner pipe (19) into the lower portion of the tubular (11) to form a sealed connection therebetween and to expand the lower portion of the expandable liner pipe to extend the tubular liner into the second wellbore section;

(i) optionally recommencing drilling of the second wellbore section and repeating steps (b) to (h).

5. Apparatus for drilling and lining a wellbore the apparatus comprising a remotely controlled electrically powered drilling assembly suspended from a cable (1) having at least one electrical wire and/or segmented electrical conductor embedded therein for transmitting electricity or electrical signals from the surface to the assembly wherein the assembly comprises an expansion means (2) and an electrically driven drill bit (6) and the cable is provided with a cable traction means (20) that is moveable along the cable for delivering an expandable liner pipe (19) from the surface to the assembly.

6. Apparatus as claimed in claim 5 in which the drilling assembly comprises an elongate housing which housing comprises (a) connection means for connecting the assembly to a suspension cable, (b) an electric motor, (c) a drive means for rotating a drill bit.

7. Apparatus as claimed in claim 6 wherein the drive means for rotating the drill bit also drives a hole-opener.

8. Apparatus as claimed in either of claims 6 or 7 further comprising an electrically operated steering means capable of adjusting the trajectory of the wellbore section as it is being drilled.

9. Apparatus as claimed in any one of claims 6 to 8 further comprising an electrically powered traction means for displacing the drilling assembly within the wellbore.

10. Apparatus as claimed in any one of claims 6 to 9 further comprising a radially extendible cutter for cutting a section of liner from the expandable liner pipe.